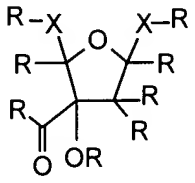
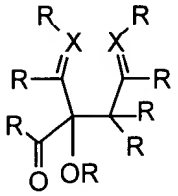
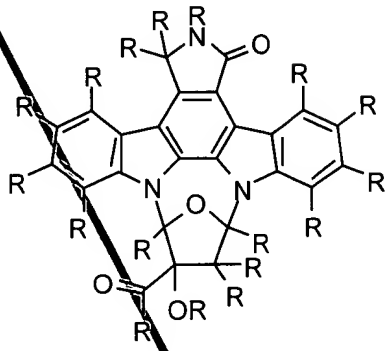
with an acetal selected from the group consisting of the formulae





and mixtures thereof,

to produce a glycosylated product of the formula



wherein R is selected from the group consisting of

a) a C_{3-10} branched or unbranched alkyl, optionally partially or fully halogenated, hydroxy, C_{1-3} alkyloxy, carboxy, amino, alkylamino, including Me, CH_2OH, and CO_2 Me;

b) an aryl optionally substituted with one to five groups consisting of halo, hydroxy, C_{1-3} alkyloxy, including Bn, DMB, and PMB;

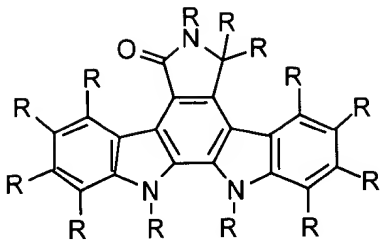
c) a hydrogen;

d) a halogen; and

e) mixtures of any of these, and

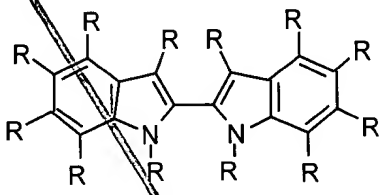
wherein X is S and/or O.

17. A process for the preparation of furanosylated indolocarbazoles by first preparing an indolocarbazole of the formula

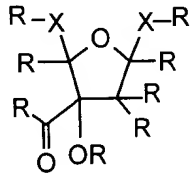


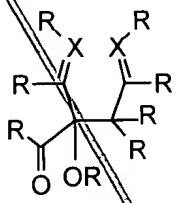
by reacting a diazo compound of the formula

with a biindole of the formula



in the presence of a transition metal catalyst in a solvent capable of solvating the reactants, and then reacting the indolocarbazole with an acetal selected from the group consisting of the formulae





and mixtures thereof, in the presence of a Bronsted acid or a Lewis acid to produce a glycosylated product of the formula